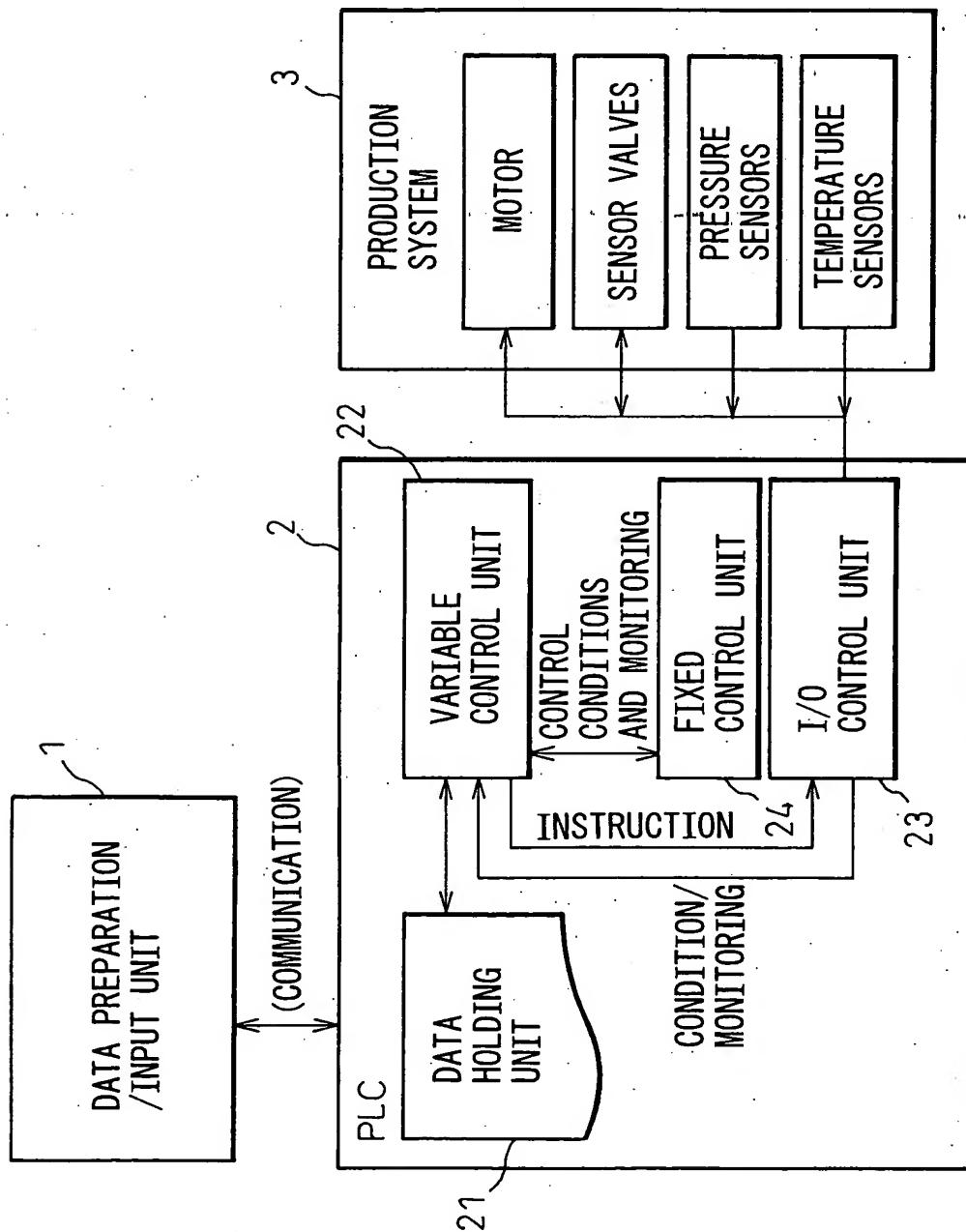


1
9

Fig. 1



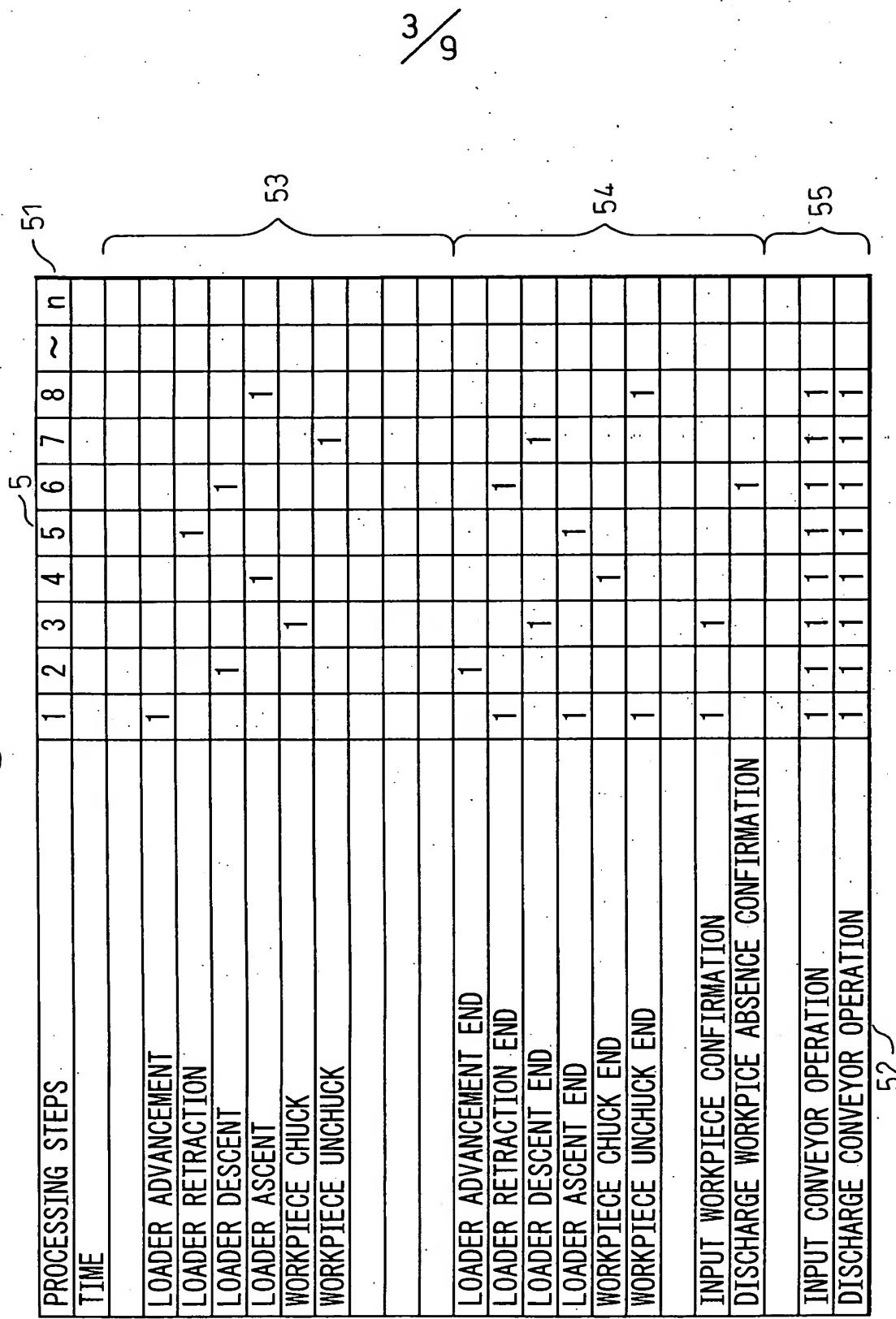
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Fig. 2

-4

<u>SL1</u>	I/O:1	0	LS	LOADER ADVANCEMENT END	
		1	LS	LOADER RETRACTION END	
		2	LS	LOADER DESCENT END	
		3	LS	LOADER ASCENT END	
		4	LS	WORKPIECE CHUCK END	
		5	LS	WORKPIECE UNCHUCK END	
		6			
		7			
		8	PH	INPUT WORKPIECE CONFIRMATION	
		9	PH	DISCHARGE WORKPIECE CONFIRMATION	
		10			
		11			
		12			
		13			
		14	EX	INPUT CONVEYOR OPERATION	
		15	EX	DISCHARGE CONVEYOR OPERATION	
<u>SL2</u>	I/O:2	0	SOL	LOADER ADVANCEMENT	
		1	SOL	LOADER RETRACTION	
		2	SOL	LOADER DESCENT	
		3	SOL	LOADER ASCENT	
		4	SOL	WORKPIECE CHUCK	
		5	SOL	WORKPIECE UNCHUCK	
		6			
		7			
		8			
		9			
		10			
		11			
		12			
		13			
		14			
		15			

Fig. 3



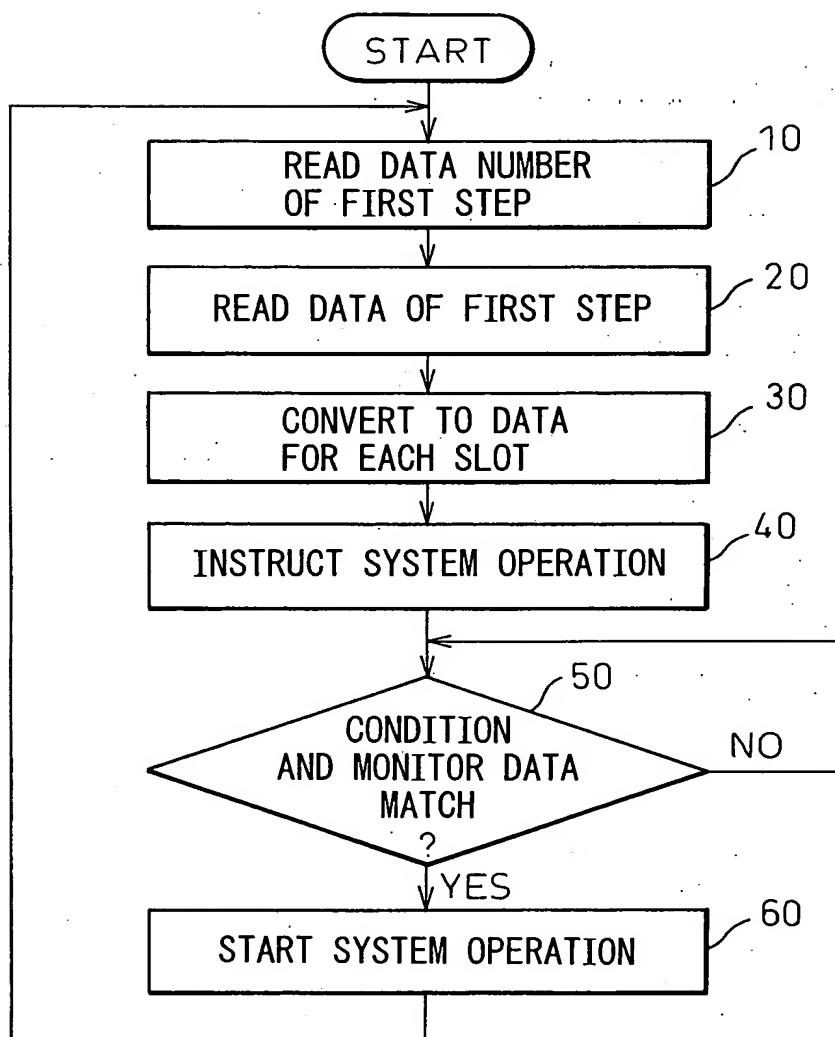
$\frac{4}{9}$

Fig. 4

DATA HOLDING UNIT			I/O DATA AREA		
OPERATION	STEP SEQUENCE	DATA AREA	OPERATION	CONDITION	MONITOR
1	4	2	200	101	104
1	1	2	202	103	105
1	2	2	204	105	104
1	1	2	203	114	105
1	1	2	201	100	104
1	1	2	202	102	105
1	1	2	205	108	104
1	1	2	203	104	105
1	1	2		103	104
1	1	2		101	105
				102	104
				105	105
					104
					105
					104
					105

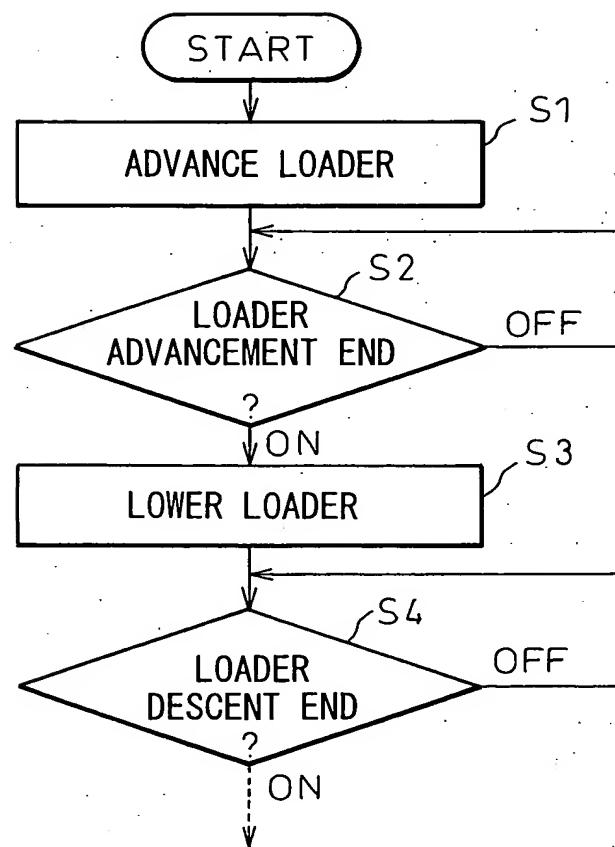
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Fig. 5



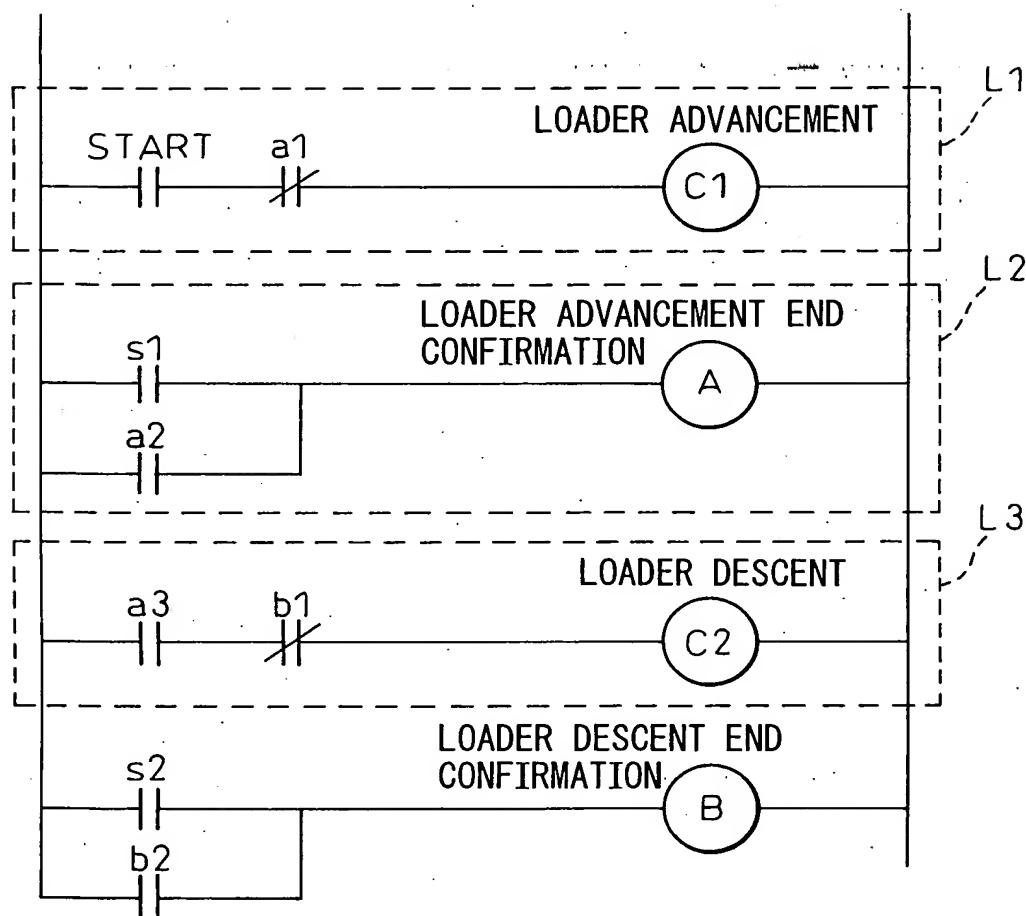
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Fig. 6



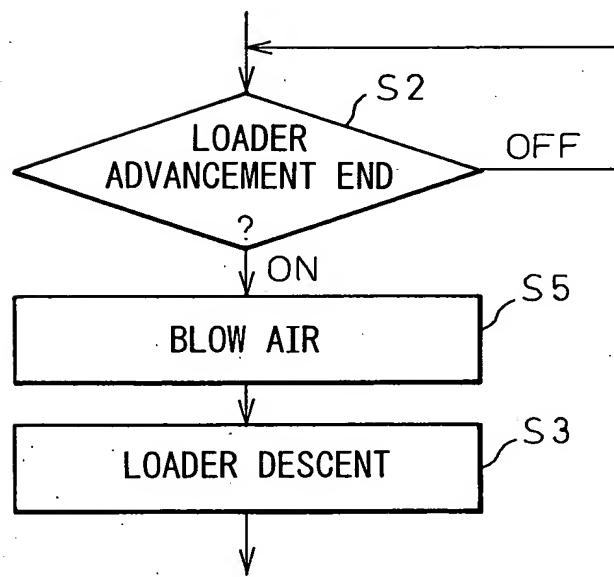
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Fig.7



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Fig. 8



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Fig. 9

